



OFFICE OF ADMINISTRATION

Commonwealth of Pennsylvania
GOVERNOR'S OFFICE of ADMINISTRATION

Office of Public Safety Radio Services

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July 16, 2007

David L. Furth, Deputy Chief
Dana Shaffer, Associate Bureau Chief
445 12th Street, SW
Washington, DC 20554

Dear Mr. Furth and Ms. Shaffer:

I would like to thank you for briefing the Pennsylvania delegation on the rebanding issues and listening to our concerns, especially those we expressed about rebanding our border area with Canada. This letter will serve to clarify some of concerns and possibly answer some of the questions you raised.

In considering changes to the radio frequency allocations along the United States-Canada border, it must be recognized that the Commonwealth of Pennsylvania is the most significantly impacted United States licensee.

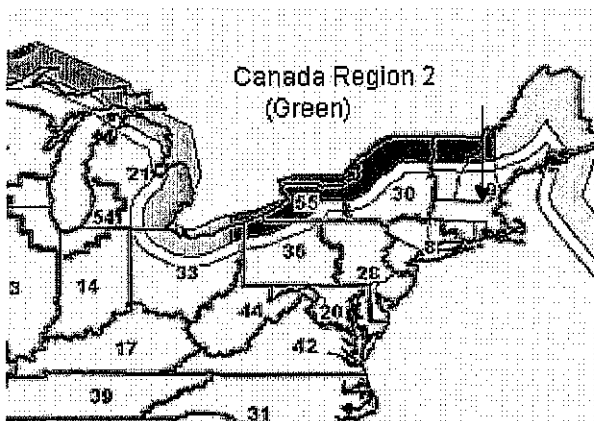
Frequency distributions between the two countries in the 800 MHz band are made at present in a manner that significantly favors Canada in a geographic region that stretches from about the Pennsylvania-Ohio border north along New York State and into New England. Of the 230 frequencies specifically set aside for public safety operations, only 75 are available on the United States' side of the border.

This border region is referred to as "Canada Border Region 2," and the allocation of frequencies between the two countries in that region has a direct impact on the 800 MHz public safety radio systems of the Commonwealth and the State of New York. The impact on the New York system is today of lesser importance than the impact on the Commonwealth's system because, while the Commonwealth's system is operational and in use by more than 23 agencies with over 13,000 radios, the New York system is not yet operational.

Because the Commonwealth's system is constructed, operational, and utilized, changes to the frequency allocations utilized thereby present certain serious problems and expose the Commonwealth to the possibilities that:

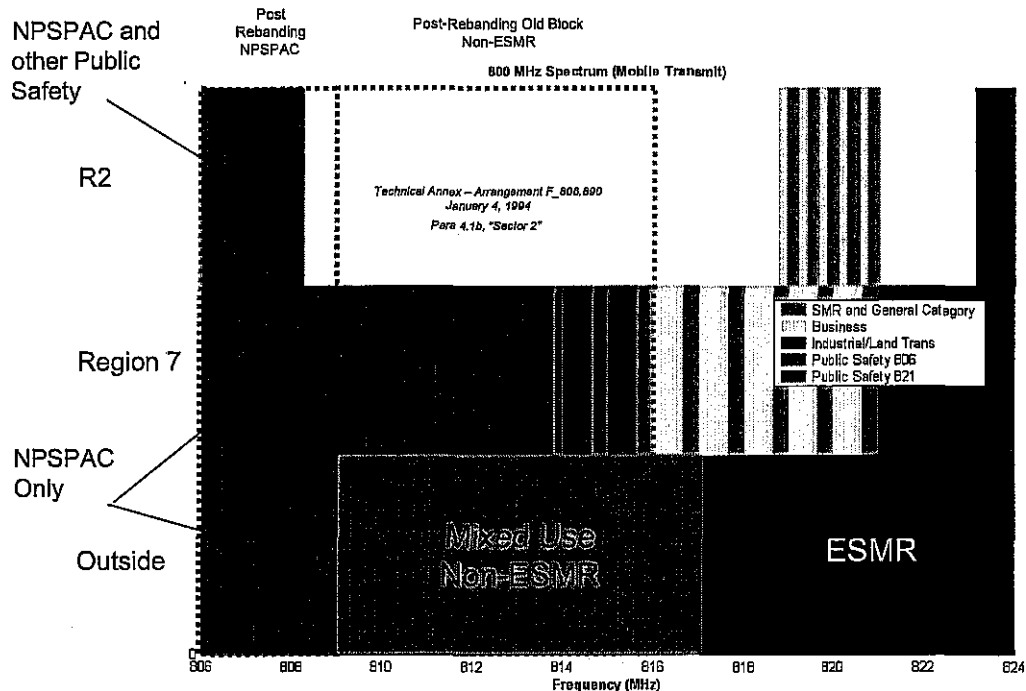
- post rebanding, the Commonwealth's system will not provide facilities comparable to those presently available because of changes to frequency allocations;
- during the physical rebanding process, there may be substantially more than minimal disruption to the operation of the Commonwealth's system because of the increase in changes to frequency allocations (compared to those required in the absence of changes due to proximity to the Canadian border).

Those consequences are simply intolerable to the Commonwealth. It is critical to the Commonwealth that the 800 MHz rebanding be effectuated in a manner such that (i) there is no degradation of the facilities of the Commonwealth's system or the performance thereof, and (ii) there is no increased risk of more than minimal disruption arising as a result of the proximity of the system to the Canadian border. Put differently, the Commonwealth requires precisely the same treatment and the same assurances accorded by the relevant orders of the Federal Communications Commission to all other 800 MHz licensees in connection with the 800 MHz Rebanding.



The Federal Communications Commission and State Department Coordinator for International Communications have not yet announced the terms of any treaty modifications with the Government of Canada. Absent this direction, certain public safety agencies, such as the State of New York, have considered various possible channel allocation scenarios. One such scenario developed on behalf of New York suggests the following post-rebanding configuration:

1. Existing public safety non-NPSPAC licensees in the band at 851-853.2375 MHz would remain on the current allocations and the original NPSPAC band would be fit into white space created by moving any Business/Industrial/Land Transportation, as well as any SMR licensees, to another part of the spectrum. This requires an uncoordinated move of the NPSPAC band into Canada region 2. NPSPAC operations in "Canada Border Region 7" and in the areas outside of the border influence would move as a coordinated block¹ into the lower 120 band.



2. This suggested approach presents several concerns to the Commonwealth.

- **Existing wideband operations may conflict with a coordinated NPSPAC move.**

¹ For the purpose of rebanding, a coordinated block allocation refers to the entire NPSPAC allocations as they are moved down by 15 MHz in spectrum as a whole entity, along with all surrounding geographic areas such that the resulting operation will exhibit the same co-channel and adjacent channel operation as prior to rebanding. Generally in areas far removed from international borders this coordinated block spectral movement will produce equivalent spectral operating conditions. A non-coordinated NPSPAC move addresses the situation where the existing licensed operation is not moved as a block, but each operation may be shifted by a metric other than the standard 15 MHz. This results in the relocated NPSPAC band producing different co-channel and adjacent channel sharing situations that must be evaluated for comparability. A non-coordinated move also consists of a situation that in border areas where other licensees may be pre-existing and can impact a coordinated move, even if the standard 15 MHz spectral shift is applied.

The Plan envisions that current wideband public safety licensees occupying the 851-853.1875 portion of the spectrum in Canada Region 2 will remain as licensed. These licensees enjoy a less restricted occupied bandwidth than current NPSPAC operations. Without requiring a tighter emission mask, and the resulting equipment replacement, these existing licensees will cause a more severe impact to adjacent channel occupancy. Each existing operation in Canada Border Region 2 has the possibility of affecting three NPSPAC channels moved into Canada Border Region 7 and outside areas. This problem is identifiable and can be addressed through changed to the relocated allocations. The Commonwealth has done a very quick survey and has identified three immediate conflicts:

1. Non-Commonwealth licensee WPGW919 operating on 851.0625 would impact Commonwealth licensed facilities WQQQ912, which would relocate to 851.0500; facilities would be adjacent channel and separated by only 69 km;
2. Non-Commonwealth licensee WPGW919 operating on 851.0625 would impact Commonwealth licensed facilities WQGR253, which would relocate to 851.0625; facilities would be co-channel and separated by only 58 km; and
3. Non-Commonwealth licensee WPMC509 operating on 852.3625 would impact Commonwealth licensed facilities WQGT915, which would relocate to 852.3625; facilities would be co-channel and separated by only 52 km.

These observations do not constitute a complete analysis of the interference impacts. These interference issues will require that the Canada Border Region 7 and outside sites be relocated to other channels. Due to the very tight site construction pattern and frequency reuse pattern of the Commonwealth, such relocation will have a domino effect three or more sites deep into the state.

- **Sites fit into white space may impact Canada Border Region 7 and sites outside the area of impact due to proximity to the Canadian border**

As uncoordinated sites are fit into the white space remaining from moving B/I/LT stations, consideration must be given to the coordinated move of the Canadian region 7 and outside sites. The goal is to move into the white space in such a fashion as not to impact the coordinated NPSPAC block. However, it is unknown if this is possible until it is attempted. If no other option is available, then the white space must be used and the coordinated NPSPAC block must be reconfigured. Such a reconfiguration of the coordinated NPSPAC band can have ripple effect two or three sites deep into the Commonwealth. There is also some concern that sufficient white space may not be available to accept all of the relocated Canadian region 2 sites, given that the existing public safety operations are occupying wider channel

bandwidth than NPSPAC and will have a greater impact on adjacent 12.5 kHz channels.

The Commonwealth is ready to work with the Federal Communications Commission and the State Department to bring about a resolution to the indicated problems. The Commonwealth makes this offer because (i) the Commonwealth is concerned that insufficient attention has been focused on the complexity and ramifications of this problem, particularly in Canada Border Region 2, (ii) the Commonwealth is the most significantly affected public safety agency, and (iii) the Commonwealth is concerned that, without its participation directly with the Federal Communications Commission and the U.S. State Department in the development of a solution to the indicated problems, public safety operations in the Commonwealth will be materially adversely affected, and such adverse effects cannot be avoided without treaty modifications that enhance channel availability on the United States' side of the border in Canada Border Region 2.

The Commonwealth's offer of assistance is conditioned upon the understanding, which should not be controversial, that the effort made by and on behalf of the Commonwealth results in a proper claim for reimbursement by Sprint Nextel Corporation as reasonable and necessary costs in connection with the 800 MHz Rebanding. The 800 MHz Transition Administrator has been unwilling inexplicably to acknowledge the propriety of such cost recovery. The Commonwealth estimates the required analysis can be completed in three to six months, but there can be no assurance that, at the end of the analysis a solution will emerge that is acceptable to the Commonwealth, the Federal Communications Commission, the State department, and the Government of Canada.

The Commonwealth clearly recognizes that the problems described in this letter, if not resolved in a manner acceptable to all concerned therein, including the Commonwealth, will delay the implementation of the 800 MHz rebanding indefinitely in the areas proximate to the border.

It has always been and still remains the Commonwealth's position that the Commonwealth is ready to reband as soon as the Commonwealth receives the assurances that (i) its costs are covered, (ii) the new frequencies are clear, (iii) means exist for the minimization of operational disruption, and (iv) there will be no loss of comparability in facilities. No such assurances are available to the Commonwealth at present.

Very truly yours,

A handwritten signature in black ink, appearing to read "Charles Brennan", with a long, sweeping horizontal line extending to the right.

Charles Brennan
Deputy Secretary
Office of Public Safety Radio Services